

CUIJPERS -- 10/792,271

Attorney Docket No.: 081468-0308590

- Amendment -

**REMARKS**

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the Office Action dated February 16, 2006, the Examiner rejected claims 1-4, 9-16, and 19-20, under 35 U.S.C. §102(b), as allegedly being anticipated by Chitayat '651 (U.S. Patent No. 4,985,651); rejected claims 5-8 and 21-23, under 35 U.S.C. §103(a), as allegedly being unpatentable over Chitayat '651 in view of Chitayat '266 (U.S. Patent No. 5,519,266); rejected claim 21, under 35 U.S.C. §103(a), as allegedly being unpatentable over Chitayat '651 in view of Kyomansu '666 (U.S. Patent No. 6,727,666); and rejected claims 22-23, under 35 U.S.C. §103(a), as allegedly being unpatentable over Chitayat '651 in view of Kyomansu '666 and Kwan '887 (U.S. Patent No. 6,635,887).

By this Amendment, Applicants have amended claims 1, 5, and 19 to provide a clearer presentation of the claimed invention and have cancelled claims 3 and 6 without prejudice or disclaimer. Applicants submit that no new matter has been introduced. As such, claims 1-2, 4-5, 7-16, and 19-23 continue to be presented for examination, of which claims 1 and 19 are independent.

Applicants respectfully traverse the prior art rejections, under 35 U.S.C. §102(b) and §103(a) for the following reasons.

**I. Prior Art Rejections**

As noted above, independent claim 1, now positively recites that the first and second linear actuators being electromagnetic linear actuators comprise a magnetic structure and a coil structure, wherein the coil structure and the magnetic structure are positioned relative to each other and separated by an air bearing that is adapted to support said object carrier. These features are amply supported by the embodiments disclosed in the Specification. (See, e.g., Originally-filed Specification: par. [0069] – [0073]; FIGs. 7,8).

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Unlike the present invention, none of the asserted references teach or suggest each and every element of claim 1, including the features identified above. In particular, the Examiner rejected claim 1, under 35 U.S.C. §102(b), as allegedly being anticipated by Chitayat '651. Applicants respectfully disagree.

The Chitayat '651 reference teaches that the X-axis rail 14 includes a horizontal top surface 38 and a vertical side surface 40 at opposed edges of sloping surface 25. the X linear motor assembly 20 includes a saddle 42 having a horizontal top arm 44 facing horizontal top surface 38, an angled arm 46 facing sloping surface 25 and a vertical side arm 48 facing vertical side surface 40. The armature 54 is installed between angled arm 46 and sloping surface 25. (See, Chitayat '651: col. 6, lines 34-40; 53-57; FIG. 2).

Regarding load bearings, Chitayat '651 discloses that vertical load (air) bearing 50 transfers vertical components of static and dynamic load from horizontal top arm 44 to horizontal top surface 38 of X-axis rail 14. Similarly, a horizontal load (air) bearing 52 transfers horizontal components of static and dynamic load from vertical side arm 48 to vertical side surface 40 of X-axis rail 14. Vertical load bearing 50 and horizontal load bearing 52 may be of any convenient type including sliding blocks, air bearings and rolling bearings. (See, Chitayat '651: col. 4, lines 40-52; FIG. 2).

In so doing, there is nothing in Chitayat '651 that teaches that that the first and second linear actuators comprise a magnetic structure and a coil structure, wherein the coil structure and the magnetic structure are positioned relative to each other and *separated by an air bearing that is adapted to support said object carrier*, as required by claim 1. Rather, the separation between the magnetic structure and a coil structure occurs along the slanted portion (i.e., armature placed between angled arm 46 and sloping surface 25) and is not adapted to support the workpiece table 36, as the vertical load (air) bearing 50 is the only component specifically designed to support and transfer vertical components of static and dynamic load from workpiece table 36 to horizontal top arm 44 to horizontal top surface 38 of X-axis rail 14. Accordingly, the Chitayat '651 reference cannot anticipate claim 1.

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Applicants further submit that none of the remaining references are capable of curing the deficiencies identified above relative to Chitayat '651. That is, as best understood, none of the asserted references teach that the first and second linear actuators comprise a magnetic structure and a coil structure, wherein the coil structure and the magnetic structure are positioned relative to each other and separated by an air bearing that is adapted to support said object carrier.

For at least these reasons, Applicants submit that the none of the asserted references teach or suggest the claimed combination of elements recited by amended claim 1. Accordingly, Applicants submit that claim 1 is patentable and request the immediate withdrawal of the prior art rejections of claim 1. In addition, because claims 1-2, 4-5, 7-16 depend from claim 1 either directly or indirectly, claims 1-2, 4-5, 7-16 are also patentable by virtue of dependency as well as for their additional recitations.

Furthermore, because independent claim 19 recites similar patentable features as noted above with respect to claim 1, claim 19 is also patentable for at least the reasons submitted relative to claim 1. And, because claims 20-23 depend from claim 19, claims 20-23 are also patentable by virtue of dependency as well as for their additional recitations.

## II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicants' Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975, under Order No. 081468-0308853.

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The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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